DOCUMENT RESUME

ED 203 387 CS 206 489

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TITLE Student Accountability for Written Work in Junior High School Classes.
INSTITUTION Texas Univ., Austin. Research and Development Center for Teacher Education.
SPONS AGENCY National Inst. of Education (ED), Washington, D.C.
REPORT NO R&DCTE-6112
PUB DATE Mar 81
CONTRACT OB-NIE-G-80-0116
NOTE 33p.

EDRS PRICE MF01/PC02 Plus Postage.
DESCRIPTORS *Accountability; *Classroom Techniques; Comparative Analysis; *Educational Research; English Instruction; Junior High Schools; Junior High School Students; Mathematics Teachers; *Secondary School Teachers; Student Responsibility; Teacher Behavior; *Teacher Effectiveness; Teacher Evaluation; *Writing Evaluation
IDENTIFIERS *English Teachers

ABSTRACT

A study examined the accountability systems for student written work set up and cased by twelve junior high school mathematics teachers. The five dimensions of accountability observed (1) clarity of overall work assignments, (2) procedures for communicating assignments and instructions to students, (3) teacher monitoring of work in progress, (4) routines for checking and turning in work, and (5) regular academic feedback to students. The characteristics of the effective teachers were then compared to those of effective junior high English teachers. Effective math and English teachers were in accord in their treatment of assignment due dates and were remarkably consistent in enforcing their own individual rules, Both effective math and English teachers varied in their methods for communicating assignments to students, but they were extremely consistent in efficient student monitoring techniques. Effective teachers from both disciplines were also consistent in checking assignments regularly. Two key actions on the part of the more effective teachers in both math and English classes followed the checking period: teachers asked students for their grades and recorded them immediately, and they always collected papers to check themselves, thus holding students accountable for the assignment. (Summaries of accountability systems used by two effective math teachers are appended.) (HTH)

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ED203387

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March, 1981

This study was supported in part by the National Institute of Education, Contract OB-NIE-G-80-0116, P2, The Classroom Organization and Effective Teaching Project, The Research and Development Center for Teacher Education, The University of Texas at Austin. The opinions expressed herein do not necessarily reflect the position or policy of the National Institute of Education and no official endorsement by that office should be inferred. Requests for reprints should be addressed to Communication Services, R&DCTE, Education Annex 3.203, The University of Texas at Austin, Austin, Texas 78712.

CS206489

Student Accountability for Written Work in

Junior High School Classes

While student accountability for work has been briefly noted as an important factor in classroom management (Emmer, Evertson, & Anderson, 1980; Kounin, 1977; Evertson, Anderson, & Brophy, Note 1), it has been addressed only minimally. The focus has been chiefly directed towards students' verbal participation in recitations and discussions. Kounin (1977) compared accountability to his concept of withitness, which he said referred to teachers' communicating to students "knowledgeability about behavior and misbehavior" (p. 123). He described accountability as pertaining to the teacher's communicating awareness of children's "task performances during recitation sessions" (p. 123). Using this definition he found, virtually by default, that holding children accountable for their work was a significant factor in classroom management only in recitation, as opposed to seatwork settings.

In examining teacher techniques for holding students responsible during recitations, Hammersley (1974) noted that pupils appeared to place much importance on this social means of proving their "smartness." Teachers, however, seemed to regard written work as the more significant indicator of student accomplishment. Similarly, when math teachers participating in the Junior High Classroom Organization Study (Evertson, Emmer, & Clements, Note 2), conducted in 1978, were asked to indicate relative weighting of students' class participation and written work toward their final grade, no respondent indicated a weight of more than 13% for class participation. The average reported weighting for class participation was only 3%. Among English teachers,

no respondent indicated a weight greater than 20% for class participation, and the average reported weighting was only 4.8%. Written work was thus used by these math and English teachers as the primary criterion to indicate student learning, student progress, and student achievement.

Anderson, Evertson, and Emmer (Note 3) distinguished between more and less successful classroom managers on the basis of several clusters of teacher behaviors. The authors used as criteria for good management evidence of "a high degree of apparent on-task involvement by the students with a minimum of misbehavior, and efficient use of class time devoted to academic activities" (p. 6). One cluster of teacher behaviors they examined included those that communicated to students the "purposefulness and meaningfulness of academic activities" (p. 8). These teacher behaviors were involved with holding students accountable for their academic work, including written work. The authors noted that this emphasis on accountability and purpose by the more successful managers apparently gave students a reason to maintain a high task orientation and to complete required tasks consistently. More successful managers appeared to provide an appropriate quantity of work for the students: work for which they could reasonably be held accountable, and work that the students could complete with a high degree of success.

Worsham and Evertson (Note 4) analyzed accountability systems for written work of 14 more and less effective junior high school English teachers included in the Junior High Classroom Organization Study (JHCOS). Accountability systems were defined as routines and procedures teachers institute for establishing and maintaining student

responsibility for written work. They identified five dimensions which distinguished the systems of the more effective from the less effective managers in English classes. These were:

1) Clarity of overall work requirements;

2) Procedures for communicating assignments and instructions to students;

3) Teacher monitoring of work in progress;

4) Routines for checking and turning in work;

5) Regular academic feedback to students.

The authors found that more effective managers had clear methods that they used consistently to deal with each of these five dimensions. Furthermore, these teachers organized and carried out behavior management systems such that students' attention was kept focused on academic tasks.

Most of the less effective managers, in contrast, did not have a comprehensive accountability system designed to deal with each of the five dimensions. Several of these teachers who had designed a relatively complete system had such problems with behavior management that student accountability for written work became of minor concern, and relevant accountability procedures were only sporadically carried out.

The authors acknowledged the difficulties involved in attempting to separate effectively designed and functioning accountability systems from classroom behavior management. They concluded, however, that comprehensive accountability systems for written work are, in themselves, positively related to effective classroom management and

that further study is needed to identify the ingredients of these systems relevant to various academic subjects and classroom tasks.

Objectives of the Study

The present study examined accountability systems for written work, set up and used by 12 junior high school math teachers. Accountability systems were defined as routines and procedures designed to promote student responsibility for written work. The systems were seen to be cycles of events and patterned behaviors following the sequence of academic activities from day to day. Characteristically beginning with teachers making assignments and giving instructions to students, the observed accountability systems also involved the process of students working on and completing assignments, and ended with teachers delivering academic feedback to students. These systems were analyzed and described, and systems of effective math teachers were compared and contrasted with those used by effective English teachers.

Methods

Analyses of the JHCOS data for 26 math teachers included identification of subsamples consisting of six more and six less effective teachers. Selection criteria included indicators of teacher classroom management skills, student cooperation and on-task behaviors, and adjusted student achievement gains (Evertson, Anderson, Anderson, & Brophy, 1980).

To delineate accountability systems of target math teachers, narratives of observations taken during the first 3 weeks of school were read blind; i.e., without knowledge of which were the more and which were the less effective math teachers. Teaching behaviors described in the narratives that seemed relevant to promoting student

responsibility for written work were noted, and a summary of each teacher's accountability system was written. Using the summaries as a basis for comparison, the 12 teachers were then classified as those whose systems appeared to be effective in consistently maintaining student responsibility for written work and those whose systems appeared to be largely unsuccessful.

This rating was compared to the two original groups of more effective and less effective math teachers. From an analysis of this comparison, it was possible to take an initial step toward evaluating the relationship between procedures for managing students' written work and overall teaching effectiveness in junior high math classes.

Results and Discussion

Comparison of the accountability systems groupings and the teaching effectiveness groupings indicated a high correspondence between comprehensive accountability systems and effective teaching in junior high math classes. Based on the efficacy of their accountability systems during the first 3 weeks of school, ten of the total 12 math teachers were placed in the same groups that they had been in based on criteria for effective teaching.

A tally of teacher behaviors relevant to student accountability for written work was made from classroom anecdotal records for each teacher. These tallies indicated the number of teachers for whom the behaviors were noted and the number of times the behaviors were mentioned for each teacher.

Tests of significance were run on these variables. Fischer's Exact Test was used to detect differences in numbers of teachers in the more and less effective groups; T-tests were used to detect differences

in the average number of times items were mentioned in more effective and less effective groups.

The following variables achieved significance at the .13 or smaller level of probability: More effective teachers were higher in requiring precise answers and correct spelling and in recording grades. Less effective teachers were higher in extension of due dates, discussion of class averages, and dead time. Teacher monitoring was significant at the .001 level for the average number of times it was mentioned although not significant for the number of teachers for whom it was mentioned. A summary is presented in Table 1.

It should be noted that counts in this table are based on the number of times an observer mentioned a specific behavior or event in the anecdotal records, rather than on direct counts of actual teacher behaviors. This is an acknowledged limitation of the study.

Using the five dimensions of accountability listed by Worsham and Evertson (Note 4) and the information derived from enumerating pertinent teacher behaviors, procedures of more and less effective math teachers were differentiated as follows.

I. Clarity of Overall Work Requirements

All of the math teachers in both groups discussed specific work requirements with their classes. Teachers were unanimous in requiring that work be done in pencil, and all required a particular heading. Student responsibility for making up work, instructions for finding out about missed assignments, and time limits for turning in this work were discussed more often by the effective than by the less effective teachers. Rather than allowing students to take work home to complete, more effective teachers were more likely to insist that class work be

turned in at the end of the period. Effective teachers also kept students informed of the current time during class work, suggesting where they should be in their work and how much time they had left.

Due dates were mentioned more by the less effective teachers. More effective teachers stated the time work was due to be turned in and virtually never extended this time. Hence, further mention of due dates by these teachers was unnecessary. Most of the less effective teachers' statements about due dates involved asking students how many had finished their work and then almost invariably postponing the due date.

Extending due dates served to encourage students to work slowly or not at all in class, as the greater the number of students not finished by the end of the period, the greater the likelihood of being given additional time (and therefore less work). This tendency might also have been punishing for those students who did work in class, as they missed out on possible classroom socializing and were given no credit for having followed the teachers' instructions. In addition, frequently the less effective teachers further discouraged efficient workers by telling them to hold their completed papers until the next day when everyone would turn them in. The negative effect on behavior management of this laxity regarding due dates was quite evident in these classes.

Another noticeable difference between more and less effective teachers involved their attention to the care with which students did their work. More effective teachers emphasized the necessity for precise answers and correct spelling, and they cautioned students to check their calculations before turning in papers. They also stressed

the importance of grading carefully when students exchanged and graded each others' papers. Rather than pushing students to work quickly or not waste time, these teachers demonstrated their concern that students work slowly, steadily, and carefully. This attention to the process and the quality of student work was in sharp contrast to some of the less effective teachers' emphasis on grades and speed.

It is interesting, in light of their greater tendency to extend due dates, to note that often the less effective teachers did indeed stress working quickly. This may have communicated mixed messages to students: "Work quickly, do not waste time; but it doesn't really matter whether or not you finish, because you will be given more time regardless."

II. Procedures for Communicating Assignments and Instructions to Students

Math teachers' procedures for communicating assignments to students varied. Four of the less effective teachers announced that assignments would be posted regularly in a specific place, but the narratives did not indicate whether they followed up on this plan. Two of the more effective managers had assignments regularly posted; narratives for the other teachers did not mention this. Most teachers in both groups announced assignments orally and usually had students begin working on assignments in class. This may explain why they did not uniformly post assignments or require students to keep assignment lists.

Perhaps because instructions in math classes tended to be relatively consistent and straightforward (i.e., "Work Problems 1-10 on page 23."), verbatim instructions were generally not recorded in the

narratives. More classes of less effective teachers showed confusion through questions they asked than did those of more effective teachers. While excessive questions could indicate unclear directions, in at least one class, student confusion reflected lack of attention, according to the observer. This teacher, one of the less effective group, apparently gave clear directions but did not require students to be quiet and attentive. Also, she was willing to repeat her instructions and examples innumerable times, thus reinforcing students' inappropriate behavior with individual attention from the teacher.

Effective procedures for communicating assignments and instructions to students, therefore, were seen to be inextricably connected to behavior management. Classes of more effective teachers expressed less confusion as a result of the teachers' requiring students' full attention while giving clear instructions.

III. Teacher Monitoring of Work in Progress

Virtually all the math teachers in both groups were observed circulating among students during seatwork periods and helping individuals who indicated such a need. While this would appear to be an appropriate and useful teacher activity, helping individuals and privately answering individual questions was not sufficient for effective monitoring. Monitoring as observed in all the more effective teachers' classrooms involved keeping students working steadily as well as working correctly. Behavioral and academic concerns were both addressed as these teachers consistently watched their students and kept them on-task. Effective teachers maintained a work oriented focus and communicated this frequently to individuals as well as to the group as a whole. These teachers noticed and responded to off-task students

immediately, and even when not circulating, they regularly scanned the classroom and addressed individual students to keep them on-task. As one observer reported, "Her eyes are all over the room." While the number of times the teacher behavior was mentioned in the narratives would admittedly depend somewhat on observer variance, the instances of monitoring mentioned (as differentiated from circulating and helping) were overwhelmingly more numerous in the effective than in the less effective teachers' classrooms (22 instances in more effective as opposed to six instances in less effective teachers' classrooms).

Related to this work-oriented emphasis was the observation that effective managers were more specific in work assignments for students to do upon completing tests or classwork. This work consisted of extra credit problems or math puzzles from the textbook, chalkboard, or ditto sheets. Having work available they were expected to do and teachers who monitored them consistently made these students more likely to maintain a task oriented focus throughout the class period. As a consequence they did not sit in "dead" or idle time to any noticeable extent.

Students in classes of less effective managers, on the other hand, were either given nothing to do after completing class assignments, told vaguely to "find something to do," or given the option of doing an additional assignment. Not having been clearly oriented toward working efficiently initially, these students were likely to sit for periods of "dead" or idle time. This led not only to less actual math work being accomplished, but increased the likelihood and occurrence of inappropriate and disruptive student behavior in classes of less effective teachers.

IV. Routines for Checking and Turning in Work

A clear routine used by both more and less effective teachers was that of "warm-ups." These were brief math exercises on the chalkboard for students to do immediately upon entering the classroom. Students were given 4 or 5 minutes to work problems while the teacher took care of "housekeeping" chores such as checking roll and absentee permits. More effective teachers generally had students exchange papers in a specified pattern and went over problems with the class. The teachers either read correct answers aloud or called on students to contribute answers. More effective teachers then typically called on students to report their grades and recorded them in the grade book. The three less effective teachers who used warm-ups took papers up without discussion, thus providing no review for students and no immediate feedback via grades.

Homework papers were regularly checked in class by both groups of teachers. Usually students exchanged papers and checked each others' as the teacher read correct answers, put answers on the overhead projector screen, or called on students to provide answers. More effective managers generally recorded homework grades in class and then took up papers. At least two more effective managers made a point of questioning low grades, explaining that they made a note of whether these students were not understanding the work or simply not doing their assignments. While less effective teachers took up homework papers fairly often, they rarely made a point of recording grades.

All the more effective teachers kept daily records of student work turned in and made regular contact with individual students about incomplete, late, or missing work. Less effective teachers, on the

other hand, tended to take up papers without always noting whose work was missing or indicating that grades would be recorded. One teacher in this group regularly had students check their own papers despite their protests that "We don't trust ourselves." Another less effective teacher whose students checked their own papers ignored students' inserting correct answers during checking periods. At least two teachers in this group did not call students to task for missing papers until near the end of the first 3 weeks. The quantity of missing work was by then so great that it was unlikely that those students could have caught up within that 3-week reporting period.

V. Regular Academic Feedback to Students

Grades were the primary form of academic feedback to students seen in junior high math classes. Most teachers in both groups had a clearly defined grading system, usually comprised of homework, classwork, and test scores. Some teachers included a notebook grade, and one teacher allowed students to drop their lowest test grade if they had taken all the tests. Most teachers explained their complete grading system to students during the first few days of school, and several teachers gave students a handout with grading information on it.

An interesting difference between the two groups of teachers regarded their approach to students' actual grades. More effective teachers more frequently recorded students' grades; less effective teachers more frequently talked about grades. More effective teachers made students' daily grades public when they had students call out scores to be recorded. These teachers generally did not comment on the number of high or low grades in the class. Rather, they were more

likely to question individual students who had made a low grade to determine whether or not they needed extra help. The emphasis was on individuals' learning and understanding the material, with grades serving merely as an indication of students' success in this process.

Less effective teachers, although less likely to record grades, more frequently asked such questions as "How many students made 70 or above?" and "How many got these problems right?" Though subtle, this shift of emphasis detracted from individual accountability and the importance of learning. Rather, the focus was on class performance as an average and on whether or not sufficient numbers of students scored high enough for the teacher to justify progressing to new material, despite the possibility that particular individuals might be having difficulty.

The Exceptional Teachers

Two teachers, when rated as more or less effective solely on the basis of a summary of their accountability systems, were placed in groups opposite their placement based on overall classroom management criteria.

Teacher 1: Less Effective Manager/More Effective Accountability System

Teacher 1 appeared to be well organized in communicating assignments to students and in work requirements. She instituted clear accountability procedures during the first few days of school and gave frequent reminders throughout the first 3 weeks to ensure students' following them. She did not emphasize using care in calculations, but she did stress using available resources to learn the spelling and meaning of vocabulary words.

Though not consistent in her monitoring, Teacher 1 appeared to be fairly effective when she did monitor. She maintained a "progress chart" on a bulletin board which recorded work that was turned in, but she was not ever described recording grades in class; she seldom was described taking up papers to check over herself. Thus, while she did have a clear system for keeping track of work, students may not have felt ultimately accountable without daily evidence that their grades were recorded and without the teacher's active perusal and feedback on the majority of their work.

According to observers, Teacher 1 generally got students' attention before giving instructions. Her directive for appropriate behavior after completing work, however, was vague and resulted in students' chatting among themselves toward the end of class periods with the teacher sometimes joining their conversations. This could indicate some inconsistency in her communication of expectations.

Thus, while Teacher 1 appeared to have a relatively extensive accountability system and to have the students' attention when communicating it, she may have had gaps and inconsistencies in implementing it. In addition, she did not put an emphasis on careful, precise work, utilize consistent monitoring, record grades in class, or take up papers regularly. These behaviors seem to have been salient ones in differentiating more and less effective teachers.

Teacher 2: More Effective Manager/Less Effective Accountability System

Teacher 2 was generally considered to be somewhat of an enigma by observers who knew of her resulting effectiveness as a classroom manager. Observers often described her instructions as vague and

unclear and said that students had to ask repeated questions to figure out what to do. On the second day of school, Teacher 2 assigned a math puzzle and indicated that she intended to take up the papers. Confused about what to do, several students crumpled up and threw away their papers in frustration, according to the observer. The teacher apparently made no move to stop them, to clarify the task, nor to take up the papers.

Teacher 2 held students responsible for turning in make-up work but did not specify a procedure or a time frame for doing this. On at least one occasion she urged students to do careful work, but she said little or nothing about overall work requirements.

Teacher 2 recorded grades in class frequently, although the observers noted that there was no assurance that the grades were accurate, as she did not usually take up graded papers. On at least three occasions, her monitoring of the class was mentioned, but she was never described specifically as circulating and helping students with seatwork. The monitoring mentioned by the observers may therefore have consisted mainly of circulating and helping, in contrast to her frequent practice of sitting at her desk as students worked, apparently without watching the class at all. Several times the class sat in dead time, and one observer noted that she did not give students enough work. Only once was it noted that the teacher assigned an extra credit problem to follow the regular assignment.

Comparison of Accountability Systems in Math and English Classes

Worsham and Evertson (Note 4) analyzed characteristics of accountability systems in junior high English classes. They found that effective English teachers appeared to have fairly extensive overall

work requirements which they presented clearly and enforced consistently. These requirements were largely focused on how neatly and completely students did the work and followed the prescribed format. Effective math teachers put little emphasis on neatness and format, focusing instead on students' working accurately and checking carefully before turning in papers. This difference in focus paralleled the difference in the nature of written work in English and math classes. The math format was relatively constant, i.e., an arrangement of math problems worked in pencil. The emphasis was on students' performing calculations accurately. Effective math teachers warned against carelessness and stressed checking and re-checking their work to help students learn good work habits and avoid being penalized for errors on work they actually knew how to do correctly. English papers varied in kind, from themes and essays requiring paragraphing, proper spelling, and punctuation, to more objective tasks such as vocabulary and spelling lists and grammar worksheets. In order to structure assignments to clarify expectations and the bases of evaluation, teachers had to specify detailed requirements for the various written assignments to a greater degree than did math teachers.

Effective math and English teachers were in accord in their treatment of due dates. In both groups, individual teachers varied in their rules regarding due dates. Some teachers refused to accept papers later than the assigned class period. Others accepted papers until 4:00 p.m. on the day they were due but rejected any turned in later. Some teachers accepted late papers but subtracted a given number of points from the total score for each late day. Still others

accepted papers for only a certain number of days after the due date, counting points off, but rejecting papers after 3 days or 1 week. When papers were unacceptably late, all these teachers recorded missing work as a zero. While rules varied among teachers, effective teachers were remarkably consistent in enforcing their own individual rules about due dates and virtually never made exceptions or extended time limits. They set up conditions they considered to be fair and then enforced them firmly.

Both effective math and English teachers varied in their methods for communicating assignments to students. In both groups, some teachers regularly posted assignments in a specified location, while others made assignments orally. Clear directions appeared to be more common among both groups of effective teachers than among less effective teachers, as did the practice of requiring student attention when instructions were being given.

Both effective English and math teachers were extremely consistent in efficient monitoring techniques. They did more than just circulate among the students during seatwork periods. These teachers were systematic in noting individual students while moving or looking around the classroom, and they addressed individuals frequently, usually privately, to keep each student accountable and on-task. These teachers were concerned that students work steadily on classwork as well as on tests, and their careful monitoring enabled them to address students immediately who were not working as expected. The nature and process of effective monitoring -- of both behavior and academic work -- appeared to be highly salient in both math and English classes to keeping students on-task and responsible for their work.

More effective math and English teachers were extremely consistent in checking assignments regularly. Homework was assigned virtually every day, and a daily routine in most teachers' classes involved students' exchanging papers and checking them in class as directed by the teacher. Usually the more effective teachers had students sign papers they graded, and at least one effective math teacher cautioned her students to grade papers with care.

Two key actions on the part of the more effective teachers in both math and English classes followed the checking period. First, these teachers asked students for their grades and recorded them immediately, as the class watched and listened. Next, these teachers always took up papers to check themselves. They were thus holding students accountable for doing their work, for doing it well, and for checking it accurately. A further step noted in classes of several more effective math teachers was their individually questioning students who made low grades or zeros. These teachers determined whether students were having difficulty and needed extra help or were not doing their assignments at all. These teachers told students that they noted such grades resulting from lack of effort in their gradebook.

When checking daily assignments in class, more effective math and English teachers provided feedback to students as to content as well as a review or further explanation of concepts and processes. By explaining how to figure grades and having grades announced for recording purposes, teachers enabled students to hear how they stood in relation to the rest of the class and gave evidence of the fact that the teachers took seriously the work they assigned. By taking up, checking, and returning papers, teachers provided additional feedback

by means of written comments and possible modifications on student grading.

Conclusions

Ratings of junior high math teachers' accountability systems proved to be highly congruent with ratings of more and less effective classroom managers. Out of 12 teachers, 10 were placed in the same group on the basis of both sets of criteria. Using the five dimensions of accountability identified by Worsham and Evertson (Note 4) in junior high English classes, a number of critical differences in accountability practices were found to distinguish more and less effective junior high school math teachers. Specifically, more effective math teachers introduced and enforced due dates, allowing virtually no exceptions. They took means to help students meet deadlines, but, unlike the less effective classroom managers, did not extend these deadlines. More effective teachers emphasized care and accuracy in completing assignments and clearly communicated instructions to attentive students. These teachers also monitored constantly in such a way as to keep students working both steadily and accurately. Less effective math teachers circulated often and helped students who requested it, but were less likely to address individuals for the purpose of keeping them on-task. Related to maintaining a work-oriented focus was the fact that the more effective managers provided specific work that students were to do upon completing assignments in class; the less effective group of teachers made either no statements or only vague comments about what students were to do after finishing their work or gave students the option of doing additional assignments. Periods of dead time were therefore greater

among classes of less effective teachers, leading to more disruptive and inappropriate behavior.

More and less effective math teachers used daily warm-ups to get students immediately on-task as they entered the classroom. Effective teachers had students exchange and check one another's papers, and then recorded grades and took papers up to check themselves. They followed the same pattern for daily homework assignments. While less effective teachers had students check homework papers regularly, they often allowed students to check their own, rather than their neighbors' papers, and the teachers did not generally record grades in class.

More effective teachers kept careful records of student work and contacted individual students frequently about low grades and about late or missing work. Less effective teachers tended to wait until near the end of the grading period, when some of them listed students' missing assignments. While more effective teachers usually recorded grades, less effective teachers tended to ask about class performance, thus shifting the focus from individual responsibility to class average.

In comparing more effective math and English teachers' systems of accountability, common emphases were apparent, although sometimes manifested differently because of differences in the nature of the subjects. Where effective English teachers emphasized form, neatness, and completeness, effective math teachers emphasized careful, accurate calculations. Both groups of effective managers enforced due dates, communicated assignments clearly to attentive students, and were highly efficient monitors. In monitoring, they kept students on-task by addressing individuals; they kept students working steadily as well as

correctly. More effective math and English teachers had students exchange and check daily papers together. In addition, they recorded grades in class and took up checked papers to go over themselves.

Thus, both groups of more effective teachers stressed high-quality work, especially accuracy and correctness, with form and completeness also emphasized in English. They insisted that students turn in assigned work when it was due and upheld their own responsibility by following up on assignments in class and by grading the work students brought to class. These teachers were highly accountable to the students and thus served as models for the responsible behavior they sought to instill.

Two Case Studies

Summaries of two accountability systems installed and maintained by two effective classroom managers in junior high school math classes are presented in Appendix A and Appendix B.

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Appendix A

Case Study: Teacher A

Teacher A required her students to keep a notebook. Besides holding daily assignments and tests, the notebook also had a dittoed grade sheet on which students were to record and average grades for each 6-weeks period. Students would then compare their average with the teacher's average to verify their 6-weeks grade. Major tests, signed by parents, as well as class notes, were also to be put in their notebooks.

By having students keep work and record grades in an organized notebook, Teacher A emphasized the importance of assignments, and demonstrated her expectation that students would do high-quality work worth recording and preserving. Students were held accountable for more than just completing daily assignments: The comprehensive notebook represented their responsibility for overall class performance, including their report card grade.

Class rules were posted, and students copied them on the first day for their notebook. As Teacher A discussed each rule, she walked around the classroom, checking to see that the students were copying them. She told students to return after school if they did not finish before the end of the period, thus holding them responsible for completing their work from the first day. She emphasized that these rules would hold true with a substitute teacher, as well as when she was present, thus indicating that students' responsibility for their behavior did not abate with her absence.

Teacher A always stood just inside the door as students entered the classroom. The day's assignments were written on the front

board, as well as warm-up exercises which students were to do immediately upon entering. Warm-ups were to be handed in when the teacher finished checking roll. She pointed out that to complete work within the time limits, students "must get into the habit of starting work when you enter the room." Warm-ups were always graded and returned to students, either at the end of the period or the following day. Here the teacher took responsibility for setting the stage for on-task behavior. She had exercises on the board when students entered, she recorded grades, and she gave regular feedback on student performance.

Homework was always checked and had to be turned in on time to avoid a zero. The teacher explained to students that it would not be fair to those who got their homework in on time for others to have more time with the chance to copy answers off someone else's completed paper. She discussed how to average grades and demonstrated to students the effect a zero could have on a homework average.

The first time she assigned homework, Teacher A provided ample class time for students to get it well underway. She explained that she wanted to answer any initial questions and help students "establish a pattern" for doing their homework correctly. Thus, she served as a model, both by upholding her responsibility for helping students learn, and by stressing the importance of the quality of their work.

The first time students returned to class with a homework assignment, she gave explicit instructions on how to exchange and mark papers. She admonished students to listen carefully to her instructions for exchanging papers, as she would have them do it differently on different days. Teacher A gave careful instructions for

grading, telling students to deduct 5 points if work was not done in pencil, and if the answers were written without the problems being copied. She either dictated or called on students for answers to problems as they checked, requesting that correct answers be given, regardless of the answer on the paper they were grading. She repeated each answer to be sure everyone heard it and often wrote answers on the board. She frequently checked to see how many missed a particular problem, and if there were many, she explained the problem in some detail. During checking periods, she walked around the room looking at students' papers. Finally, she told them step-by-step how to determine the grade and to pass graded papers quietly back to their owners. Again, Teacher A was actively accepting her responsibility for enabling students to learn. By going over problems most students found difficult, she demonstrated her concern for their learning and her own accountability to them.

Teacher A called on students for their grades and recorded them in her gradebook. If students thought their papers had been graded incorrectly, they were to tell her the grade they were given and put their paper in a designated place on her desk. She then checked it at the end of the period. Students who had been absent were to give her their papers to be checked. When students reported low grades, she asked if they had finished the assignment. If they had missed problems through lack of understanding, she promised to help them later. For those who had not finished the assignment, she explained that she put a star beside the grade in her book. If she contacted parents later, she then knew whether students with low grades were doing work incorrectly, or were simply not completing homework assignments. She reminded

students to record grades on their grade sheets and periodically told them how many grades they should have listed.

By allowing students to question their grades, Teacher A showed that she expected them to think critically; both in the process of grading, and in deciding whether to accept or challenge their own grade. By marking incomplete assignments, the teacher actually accomplished two purposes. She pointed out the qualitative difference between trying and not trying to accomplish learning tasks she had assigned, as well as recording qualitative information to use in possible contacts with parents.

When Teacher A gave a test, she had students use a coversheet. Upon finishing, they were to stack their test papers face down on a table. She walked around the classroom during the test, saying she did not want to be able to see any answers. After tests were turned in, students were to work on the next assignment or on an extra credit problem which was always on the back chalkboard. Teacher A cautioned students to check over their work and to be sure they had an "A" paper before turning it in.

Teacher A kept students task oriented by always having meaningful work for them to do. In this way, she communicated her belief that this content was worthy of their attention and that class time was to be used efficiently.

Appendix B

Case Study: Teacher B

On the first day of school Teacher B said she expected the students, as eighth graders, to be responsible for bringing materials to class every day. She would lend them books and papers if necessary, but would penalize them with 30 minutes detention as well. She told students that their work must all be in pencil and that it must be clear, legible, and not messy. If work was in ink or messy, she said she would "junk it." She referred to this repeatedly during the first 3 weeks, saying that if students did not get a paper back, it was either because they did not turn one in, did not put their name on it, or did the paper in ink or illegibly.

She gave specific instructions before every assignment, reminding students to use pencil and to put the proper heading, as well as cautioning them to work carefully and accurately. Problems were on the board when students entered the classroom, both at the beginning of class and after lunch. Directions were also on the board, and Teacher B read these aloud as students began working. When she wanted students to do something new or differently, she demonstrated and had students answer questions to show that they understood.

In giving instructions Teacher B either waited for or actively obtained everyone's attention. She also announced time limits and/or due dates and reminded students to work carefully, to show or not to show their work, and to check over their work before turning in papers. After having students grade papers in class, she allowed questions and usually could say, "I told you that" before repeating an answer. In

giving a test, she told students specifically how to pace their work, so they would be ready to start Part 2 after the lunch break.

Assignments were listed daily on posters in the back of the room, and due dates were enforced. Students returning from an absence were to turn in missed assignments within as many days as they had been absent. She took up virtually all student work, either to grade herself or to check over after it was graded in class. When having students exchange and grade papers, she went over each problem and/or answer, often writing work on the chalkboard that she expected students to have on their papers. Rejecting papers that did not meet her work standards, she recorded the grades of those that did, and returned work while reminding students to note whether they needed to make up or redo any papers.

Students knew when to pass papers to the front (warm-ups and homework) and when to give them directly to her (tests). Daily assignments usually consisted of homework that students started in class, with the time gauged so they did not finish by the end of the class period. Teacher B monitored actively and kept them on-task until the end of the class period.

Academic feedback was provided daily when students graded their own homework assignments and/or warm-ups. Teacher B returned work before tests and urged students to study their papers as a review for the test. She encouraged questions about anything students did not understand and reminded them periodically that she was always available before and after school to provide help.

When students began working on an assignment, Teacher B walked systematically up and down the rows looking at their work. She

frequently scanned the class and helped students in the order in which they raised their hands. On the rare occasion that she noted an area of confusion that seemed fairly widespread, she clarified it for the whole class. During tests, Teacher B sometimes worked at her desk, but the observer said, "Her eyes are all over the room." She reminded students before tests that talking would result in a zero, and she waited until everyone was quiet and ready before passing out test papers.

Teacher B served as an excellent model for her students, being consistently accountable to them in helping, answering questions, and reminding them of requirements, as well as by enforcing her expectations. She stayed on-task throughout the class periods, and saw to it that students remained on-task as well.

Table 1

Observed Teacher Behaviors Related to Accountability

Event	Number Teachers for Whom Mentioned			Average Number Times Mentioned		
	More Effective	Less Effective	p	More Effective	Less Effective	p
Due dates enforced	2	2	NS	.5	.5	NS
Due dates extended	0	5	.01	0	1.5	.02
Precise answers, correct spelling	5	2	.12	1.667	.5	.11
Teacher monitors	6	4	NS	4.167	1.167	.001
Work to do when finished	4	4	NS	2	.833	NS
Students in dead time	1	4	.12	.333	1.333	.12
Warm-ups	5	3	NS	1.333	2.5	NS
Grades recorded	5	2	.12	2.167	.5	.07
Teacher takes up papers	6	6	NS	4.333	5.167	NS
Class average discussed	1	4	.12	.167	1	.13